

REMARKS

Claims 8, 10-12, 20-25, and 27-30 remain pending in the present application as amended. Claims 8, 20, and 25 have been amended. No claims have been added or canceled. Applicants respectfully submit that no new matter has been added to the application by the amendment.

Telephone Conversation With Examiner

Examiner Chen is thanked for the telephone conversation conducted on December 14, 2009 with the undersigned. As the Examiner notes in the instant Office Action, proposed claim amendments were discussed and further refinements were suggested. Apparently there was some confusion in the communications, because Applicants' representative provided proposed amendments and was waiting for a response from Examiner.

Examiner Chen is thanked for the telephone conversations conducted on March 8, 2010 and March 16, 2010. Claimed subject matter was discussed. Asserted art was discussed. No agreements were reached.

Examiner Chen expressed confusion during the conversation regarding how a unique identifier (the URI) could uniquely identify multiple objects. Applicants by the undersigned explained that each URI is recited to uniquely identify a single object, which is a collection¹. To clarify this issue, the claims have been amended to recite that each URI respectively uniquely identifies [a collection] by identifying a location [of the collection].

Examiner Chen also expressed the view that the present application discloses that the container recited in the claims includes each of the plurality of recited collections. That said, Applicants respectfully submit that the disclosure supports the recitation in the claims that each container contains a reference (the corresponding URI) to each collection, and not the collection itself. Such an arrangement is supported based on the disclosure of the use of URIs, inasmuch as such URIs would otherwise be unnecessary.

¹ The collection, which is disclosed in the application at paragraph [0046] (as published) is to be distinguished from the XML Schema Collection of paragraph [0045].

Non Statutory Obviousness-Type Double Patenting

The Examiner has now rejected claims 8, 20, and 25 based on non-statutory obviousness-type double patenting. In particular, the Examiner states that such claims are obvious based on the subject matter as set forth in claims 1, 7, and 15 of U.S. Patent No. 7,475,093 (the '093 patent). Applicants respectfully traverse the double patenting rejection for the reason that the claims of the present application are substantially different from and therefore not obvious in view of the claims of the '093 patent.

Applicants reproduce herein claim 7 of the '093 patent and [corresponding] claim 20 of the present application, side-by-side:

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| <p>7. A computer-implemented method of performing data management, comprising:</p> <ul style="list-style-type: none">receiving data representative of a schema;providing a common cache interface for consumers of a cache memory that facilitates dynamic control of the cache memory;caching in the cache memory selected schema components to perform instance validation;shredding the selected schema components into selected tables of metadata and selectively loaded and caching only the most frequently used schema components;loading only selected components of the schema components to perform the validation and during validation loading and caching only the selected components that are used;utilizing a mechanism for cache cleanup that keeps the most frequently used schema components in memory while less frequently used schema components are removed periodically, the mechanism for cache cleanup is driven by memory pressure and based upon a number of Input/Output (I/O) reads to compute a cache entry and total | <p>20. (Currently Amended) A processor-implemented method of validating Extensible Markup Language (XML) instances to be stored in a column of a relational database, said method comprising:</p> <ul style="list-style-type: none">creating, via the processor, a container for a plurality of XML schema namespaces, each XML schema namespace uniquely identifying a collection of element type and attribute names, each namespace having a URI (Uniform Resource Identifier) identifying a location of a schema document corresponding to and defining the uniquely identified collection of the namespace, each namespace URI thereby specifying a schema for any of a plurality of XML instances conforming to said schema document, each XML instance having a set of XML data conforming to the schema specified by an XML schema namespace;placing in the created container at least two XML schema namespace URIs;associating a column of a relational database with said container to ensure that any XML instance stored in the associated column conforms to the schema of any of the at least two of the XML schema namespace URIs in the container, wherein said associating includes |
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| memory required to compute the cache entry, such that if the system is overloaded, schema components will be more aggressively removed from the cache, and wherein the cache is not allowed to keep unused data permanently, and thus, the cache supports forced cleanup; and expressing cost in the same quantities for all caches and implementing aging and cleanup via a costing mechanism, the costing mechanism is based on Central Processing Unit (CPU) and I/O time required to extract type information from the cache, and wherein lifetime of an entry in the cache is defined by usage and cost. | ensuring that any XML instances existing in said column prior to said associating conform to at least one schema document identified by a namespace URI in said container; ensuring, prior to storing a particular XML instance in said column, that the particular XML instance conforms to the schema of one of said XML schema namespace URIs in the container; and storing said particular XML instance in said column upon so ensuring. |
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Applicants respectfully assert that an inspection of the above claims must result in a conclusion that claim 7 of the '093 patent fails to disclose or even suggest many of the elements recited in claim 20 of the present application, including a created container for a plurality of XML schema namespace URIs, at least two XML schema namespace URIs placed in the created container, a column of a relational database associated with the container, and ensuring, prior to storing a particular XML instance in the column, that the particular XML instance conforms to the schema of one of said XML schema namespace URIs in the container, among other things. Moreover, Applicants respectfully submit that the claims of the '093 patent are not even directed toward storing an XML instance in a column of a relational database, but only if the instance conforms to any of multiple XML schemas associated with the column as set forth in an associated container, as is the case with the claims of the present application.

Moreover, Applicants respectfully point out that the present application and the '093 patent represent entirely distinct patent families with no common application. In particular, the present application (10/726,080) was filed on December 1, 2003 without any claim for priority or other reference to another application, and the '093 patent resulted from application number 11/185,310, which was filed on July 20, 2005 and claims priority to 60/619,131, filed on October 15, 2004. Notably, the October 2004 priority date of the '093 patent is well after the December

2003 filing date of the present application, which in and of itself should preclude any assertion of obviousness, including non-statutory obviousness-type double patenting.

As a result, Applicants respectfully submit that claims 8, 20, and 25 are in fact not obvious based on the subject matter as set forth in claims 1, 7, and 15 of U.S. Patent No. 7,475,093 (the '093 patent). Accordingly, Applicants respectfully request reconsideration and withdrawal of the non-statutory obviousness-type double patenting rejection.

Section 112, Second Paragraph Rejection

The Examiner has now rejected the claims under 35 U.S.C. § 112, second paragraph as being indefinite for the reason that the 'associating the column . . . ' passage is believed to be indefinite. Applicants respectfully traverse the Section 112, second paragraph rejection insofar as it may be applied to the claims as amended.

Upon a review of the passage pointed to by the Examiner, Applicants have determined that some confusion may have been present in the claims due to the interchangeable use of 'namespace' and 'namespace URI', and also due to the presence of the phrase 'with a specific namespace URI' or the like. With regard to the latter, Applicants have amended the claims to remove the phrase.

With regard to the former, Applicants have amended the claims to emphasize that each namespace has a URI (Uniform Resource Identifier) which acts as a unique identifier for a location of a corresponding schema document, and which can also be employed as a name and/or identifier for the namespace (See paragraph [0075] of the application (as published)). Additionally, Applicants have amended the claims to emphasize that the created container has therein the URIs of the namespaces.

Applicants respectfully point out that 'associating a column of a relational database with [a] container to ensure that any XML instance stored in the associated column conforms to the schema of any of the at least two of the XML schema namespace URIs in the container' should properly be understood to mean that a 'typing' or other correspondence is created between a column and a container, whereby the typing requires that any XML instance in the column

conforms to the container. In particular, such an instance conforms to any schema identified by any of several URIs already placed in the container. Otherwise, the instance is not allowed to be in the column.

Applicants again respectfully point out that ‘typing’ an XML column is set forth in the application as filed at paragraph [0075] et seq. (as published). Generally, when creating an XML schema collection object or the like in accordance with the present application, a container object is created and multiple schemas are specified by way of corresponding URIs. Next, a function call is made which assigns the XML schema collection object to the single column to ‘type’ same with such object. XML instances in the single column can then be validated according to any of the multiple schemas represented by the URIs of the XML schema collection object, rather than just a single schema as was previously the case.

Applicants note here that in setting forth the Section 112, second paragraph rejection, the Examiner asks several times why particular features are not recited in the claims. Applicants respectfully point out that the claims need not recite every feature disclosed in an application. Instead, the claims need only recite those features that are required for achieving patentability by overcoming the prior art. Applicants respectfully submit, then, that any discussion of particular features not recited in the claims is inapposite, especially in the context of the present Section 112, second paragraph rejection. That said, should the Examiner wish to suggest particular features that would allow the claims to overcome the prior art, Applicants would wholeheartedly welcome such suggestions.

Based on the aforementioned amendments and discussion, Applicants respectfully submit that the independent claims and all claims depending therefrom are clear. As a result, Applicants respectfully request reconsideration and withdrawal of the Section 112, second paragraph rejection.

Lack Of Prior Art (Section 102 Or 103) Rejections

Applicants respectfully note that the Examiner has not asserted any prior art rejection in the present Office Action. Applicants respectfully point out, then, that any subsequent Office

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Action with such a prior art rejection should not be made final. That is, such a prior art rejection can not be said to be necessitated by Applicants' present amendment of the claims, especially inasmuch as the present claim amendments are in response to the above-discussed Section 112, second paragraph rejection only. According to MPEP 706.07, then, such a subsequent Office Action cannot be made final.

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CONCLUSION

In view of the foregoing Amendment and Remarks, Applicants respectfully submit that the present Application including claims 8, 10-12, 20-25, and 27-30 is in condition for Allowance and such action is respectfully requested.

Respectfully submitted,

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